CLAIMS

What is claimed is:

1. A method for mobile transmission protocol based handover of a mobile device between non-intersecting networks, comprising:

responsive to detecting a need for a mobile device to transfer out of a first network, sending to a communication endpoint a first request in a mobile transmission protocol to stop transmissions to a first address of said mobile device and a second request in said mobile transmission protocol to add an intermediary address of a mobility support service designated for receiving any communications already in transmission when said first request is sent;

transitioning a communication link for said mobile device from said current address at said first network to a second address at a second network, wherein said first network and said second network are non-intersecting networks; and

indicating to said mobility support service that said handover from said first network to said second network is complete, such that said mobility support service sends a third request in said mobile transmission protocol to said communication endpoint to continue communication with said mobile client at said second address.

2. The method for mobile transmission protocol based handover according to claim 1, further comprising:

receiving, from said mobility support service, said communications already in transmission when said first request is sent.

3. The method for mobile transmission protocol based handover according to claim 1, wherein indicating to said mobility support service that said handover from said first network to said second network is complete further comprises:

registering said first address with said mobility support service;

receiving a key from said mobility support service for future communications with said mobility support service; and

sending said key to said mobility support service from said second address.

4. The method for mobile transmission protocol based handover according to claim 3, wherein said key is an encrypted key for enabling only authorized future communications.

5. The method for mobile transmission protocol based handover according to claim 1, wherein said mobile transmission protocol is mobile Stream Control Transmission Protocol.

6. The method for mobile transmission protocol based handover according to claim 1, wherein said first request is a zero window update.

7. The method for mobile transmission protocol based handover according to claim 1, wherein said second request and said third request are AddIP requests.

8. A system for mobile transmission protocol based handover of a mobile device between non-intersecting networks, comprising:

a mobile device located at a first address in communication with a device located at a communication endpoint via a first network;

means, responsive to detecting a need for a mobile device to transfer out of a first network, for sending to said communication endpoint a first request in a mobile transmission protocol to stop transmissions to said first address and a second request in said mobile transmission protocol to add an intermediary address of a mobility support service designated for receiving any communications already in transmission when said first request is sent;

means for transitioning a communication link for said mobile device from said current address at said first network to a second address at a second network, wherein said first network and said second network are non-intersecting networks; and

means for indicating to said mobility support service that said handover from said first network to said second network is complete, wherein said mobility support service sends a third request in said mobile transmission protocol to said communication endpoint to continue communication with said mobile client at said second address.

9. The system for mobile transmission protocol based handover according to claim 8, further comprising:

means for receiving, from said mobility support service, said communications already in transmission when said first request is sent.

10. The system for mobile transmission protocol based handover according to claim 8, wherein said means for indicating to said mobility support service that said handover from said first network to said second network is complete further comprises:

means for registering said first address with said mobility support service;

means for receiving a key from said mobility support service for future communications with said mobility support service; and

means for sending said key to said mobility support service from said second address.

11. The system for mobile transmission protocol based handover according to claim 10, wherein said key is an encrypted key for enabling only authorized future communications.

12. The system for mobile transmission protocol based handover according to claim 8, wherein said mobile transmission protocol is mobile Stream Control Transmission Protocol.

13. The system for mobile transmission protocol based handover according to claim 8, wherein said first request is a zero window update.

14. The system for mobile transmission protocol based handover according to claim 8, wherein said second request and said third request are AddIP requests.

15. A computer program product for mobile transmission protocol based handover of a mobile device between non-intersecting networks, comprising:

means, recorded on said recording medium, for sending to a communication endpoint a first request in a mobile transmission protocol to stop transmissions to a first address of said mobile device and a second request in said mobile transmission protocol to add an intermediary address of a mobility support service designated for receiving any communications already in transmission when said first request is sent, responsive to detecting a need for a mobile device to transfer out of a first network;

means, recorded on said recording medium, for transitioning a communication link for said mobile device from said current address at said first network to a second address at a second network, wherein said first network and said second network are non-intersecting networks; and

means, recorded on said recording medium, for indicating to said mobility support service that said handover from said first network to said second network is complete, such that said mobility support service sends a third request in said mobile transmission protocol to said communication endpoint to continue communication with said mobile client at said second address.

16. The computer program product for mobile transmission protocol based handover according to claim 15, further comprising:

means, recorded on said recording medium, for receiving, from said mobility support service, said communications already in transmission when said first request is sent.

17. The computer program product for mobile transmission protocol based handover according to claim 15, wherein said means for indicating to said mobility support service that said handover from said first network to said second network is complete further comprises:

means, recorded on said recording medium, for registering said first address with said mobility support service;

means, recorded on said recording medium, for receiving a key from said mobility support service for future communications with said mobility support service; and

means, recorded on said recording medium, for sending said key to said mobility support service from said second address.

18. A method for supporting mobile transmission protocol based handover of a mobile device between non-intersecting networks, comprising:

transferring, from a mobile support service, a key for future communications from a mobile device registered at a first address and in communication with a device located at a communication endpoint accessible via a first network; and

responsive to receiving said key at said mobile support service from said mobile device located at a second address within a second network non-intersecting said first network, sending a request from said mobile support service in said mobile transmission protocol to said communication endpoint to add said second address as a destination address for communication with said mobile device.

19. The method according to claim 18 for supporting mobile transmission protocol handover further comprising:

receiving, at said mobile support service, communications intended for said mobile device, but transmitted from said communication endpoint before said mobile device choked the connection to said first network and added an address for said communication endpoint as a destination address for communications with said mobile device; and

buffering said communications until requested from said mobile device with said key.

20. The method according to claim 18 for supporting mobile transmission protocol handover, wherein said mobile transmission protocol is the mobile Stream Control Transmission Protocol.

21. The method according to claim 18 for supporting mobile transmission protocol handover, wherein said request in said mobile transmission protocol is an AddIP request.

22. A system for supporting mobile transmission protocol based handover of a mobile device between non-intersecting networks, comprising:

a mobile support service residing in a server system communicatively connected to a first network accessible to a mobile device;

said mobile support service further comprising:

means for transferring a key for future communications from said mobile device registered at a first address and in communication with a device located at a communication endpoint accessible via said first network; and

means, responsive to receiving said key from said mobile device located at a second address within a second network non-intersecting said first network, for sending a request in said mobile transmission protocol to said communication endpoint to add said second address as a destination address for communication with said mobile device.

23. The system according to claim 22 for supporting mobile transmission protocol handover, said mobile support service further comprising:

means for receiving communications intended for said mobile device, but transmitted from said communication endpoint before said mobile device choked the connection to said first network and added an address for said communication endpoint as a destination address for communications with said mobile device; and

means for buffering said communications until requested from said mobile device with said key.

24. The system according to claim 22 for supporting mobile transmission protocol handover, wherein said mobile transmission protocol is the mobile Stream Control Transmission Protocol.

25. The system according to claim 22 for supporting mobile transmission protocol handover, wherein said request in said mobile transmission protocol is an AddIP request.

26. A computer program product for supporting mobile transmission protocol based handover of a mobile device between non-intersecting networks, comprising:

a recording medium;

means, recorded on said recording medium, for transferring, from a mobile support service, a key for future communications from a mobile device registered at a first address and in communication with a device located at a communication endpoint accessible via a first network; and

means, recorded on said recording medium, for sending a request from said mobile support service in said mobile transmission protocol to said communication endpoint to add said second address as a destination address for communication with said mobile device, responsive to receiving said key at said mobile support service from said mobile device located at a second address within a second network non-intersecting said first network.

27. The computer program product according to claim 26 for supporting mobile transmission protocol handover further comprising:

means, recorded on said recording medium, for receiving, at said mobile support service, communications intended for said mobile device, but transmitted from said communication endpoint before said mobile device choked the connection to said first network and added an address for said communication endpoint as a destination address for communications with said mobile device; and

means, recorded on said recording medium, for buffering said communications until requested from said mobile device with said key.